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beneath Boone's ancient trail. The old and new are strangely blended in this land, and the visitor, according to his bent, can with equal facility look only at the new or altogether at the old, measuring the coal seams and building roads, or seeing in meditative vision the silent procession of men, women, and children who conquered the Ohio River and made possible the Louisiana Purchase and an American empire on the Pacific.

NOTES FROM THE DIARY OF THE LATE FRANCIS H. NICHOLS IN CHINA.

These Notes describe the passage through the Yangtze Gorges and the land-travel to the City of Tachienlu, where Mr. Nichols lived for months, preparing himself for the Tibetan journey which he was never to make. Turned back in Eastern Tibet, he went by way of India to Gyangtse, where he died.

Chinese names and words are spelled as in the Diary.

July 29, 1903. At eight o'clock this morning I left Ichang for Chunking, about 480 miles farther up the Yang-tze. Three miles beyond Ichang the gorges of the Yang-tze River begin. From Ichang to its sources, 1,000 miles to the westward, the river is confined between mountains and high cliffs. The compression of this vast body of water causes an exceptionally swift current, with swirling whirlpools. The numerous rocks, too, in the river-bed cause a succession of rapids, which make navigation at all times difficult, slow, and hazardous. But these conditions are now accentuated by the recent rise of the water in the river. During the last three weeks the water has risen forty feet at Ichang, and I am informed that the rise at Chunking is 100 feet. The speed of the current has increased proportionately with the rise of water. For hundreds of miles the river runs with the force of a mill-race. As a result the usual junk traffic is almost suspended, and this part of the Yang-tze is practically devoid of boats of any kind.

For me, however, a river voyage is necessary. In order to have as much time as possible on the Tibetan border I must hurry through this stage of my journey.

My boat is a species of junk called a *Wupan*. The literal translation of *wupan* is *five boards*. After the fashion of the smaller craft of China, a *wupan* receives its name from the number of angles in its hull, just as the one-oared *sanpan* is so called because its *lines* are three in number—two in its sides and one across its broad stern. My *wupan* is twenty-five feet long and has a beam of about eight feet. Like all Chinese boats, it is built in compartments divided by bulkheads. Although intended for carrying freight, the *wupan* is adapted for carrying passengers by a roof of matting stretched over posts lashed to the sides.

Over the *wupan*'s stern extends a long, ungainly tiller; another similar tiller is at the square bow; along the thwarts are two long oars. Just forward of the matting-protected space which I dignify with the name of cabin a mast is stepped. From it hangs a square canvas sail, rigged with bamboo reefs. But by far the most important

part of the wupan's equipment is the ropes of braided strips of bamboo, which are carried in huge coils, some stored on the decks and some below the boards of the cabin.

It is with these ropes more than anything else that we are to be tugged and hauled over sunken reefs, through whirlpools and against a fierce current.

The price of a journey to Chunking in a wupan is an excellent commentary on the rate of wages and the cost of living in China.

The captain or *Lowban* with whom I made the contract has agreed to reach Chunking within 30 days for the sum of 96 taels (about \$55 U. S.). Besides the boat, he provides the crew and their food and allows me to carry a cargo of 1,200 catties (1,600 lbs.) of merchandise to a French trader at Chunking, for which I am to be paid by the consignee 26 taels (\$16), thereby reducing the cost of my voyage to about \$30 gold.

The crew consists of 18 men. If the lowban were to disperse among them all of the 96 taels he receives from me, he would pay each man for his month's labour taels 5.30 (\$3.18 U. S.).

Of course he does not do this. All of the taels 96 are not distributed among the crew. A considerable part are retained by the lowban as his profit, so that it is safe to assume that for performing the hardest kind of manual labour, working 14 hours per day in the burning sun, swimming, towing, and tracking, with only a crowded deck as a sleeping-place, each boatman receives considerably less than \$3 gold per month.

It must not be supposed, either, that the boatmen's low wages are the gauge of an exceptionally low intelligence.

The wupan is ungainly and hideous, but by a skilled knowledge of their craft they are able to force it against a tide and through whirlpools where steam navigation has never succeeded. Every mile of the way presents new difficulties and dangers. Rarely are any two obstacles of the same kind. They can be overcome only by the greatest ingenuity and a skilled knowledge of their trade that is the result of a life spent on a Yang-tze boat.

July 30. A wupan has three officers; the Lowban or captain, the *Taikon* or pilot, and the headman of the coolies. The rank and authority of all of the three are about equal. Each is responsible for his share of the work, and no one of the three attempts to exercise any authority over the others. From a beam fastened across the boat amidships the lowban works the tiller. His appearance on the beam is not unlike a bird on a perch. His work would be impossible if he wore shoes, but, like all the rest of the ship's company, the lowban's feet are bare. From long practice they seem to have adapted themselves to the three-inch perch, and they cling around it like birds' claws.

At the bow stands the taikon. He manipulates the long oar and shouts orders to his five subordinates, whose duty it is to raise and lower the sail, to fend off the rocks with long bamboo poles and "*Yolo*," as the Chinese call the peculiar style of sculling which furnishes the principal motor power for the great majority of all the ships of the Empire.

The oars are attached by bamboo ropes to bollards in the wupan's bulwarks. In the *yolo* movement the oars drag in the water parallel with the sides of the boat. The oars are never lifted out of the water as in rowing, but the boatmen merely take hold of the long handles and, with a movement of the wrist, turn the oars in the water and then let them fall back again. The *yolo* is quite as important a factor in steering as the rudder. By the *yolo* the boat can be made to go either fast or slow,

and yet the movement of the boatmen in working the oars is always apparently the same. Crude and clumsy as the oars are, it must be a very delicate manipulation of them which can produce such differences of speed and direction without any perceptible difference of method.

The thirteen trackers comprise the shore force of the wupan. The trackers wear over their shoulders a heavy cloth loop, which is attached to the towing rope.

In places when an adverse current is the only obstacle they walk along the shore two abreast, with the rope between them.

When the walls of the gorges rise in precipitous cliffs they clamber from one foot-hold to another, carrying the tow-line a distance of two hundred yards or more from the boat, make it fast to a tree or to a projecting rock, and then slowly haul the wupan up to them. Here it is made secure by a short line carried ahead again by the trackers. Occasionally we pass a small bay of the Yang-tze or the mouth of a tributary river. To carry the line around such an obstacle would be impossible. At the first bay we encountered I wondered how the feat was to be accomplished. One of the trackers took the end of the rope in his teeth and swam across the inlet. The rest followed him, swimming as unconcernedly as if they were walking on land. Without a moment's hesitation for a drying or resting process, the crowd seized the rope they had just landed and hauled us up to them. This swimming manœuvre is repeated many times in the course of the day. The trackers think nothing of jumping into the river on a minute's notice and remaining for three-quarters of an hour submerged to the shoulders. The whirlpools and undertow make swimming exceedingly dangerous for foreigners, but the boatmen seem to have absolutely no fear. On the rare occasions when the smooth water is reached the trackers clamber into the boat and join the crew at the yolo. One of their number is a boy about twelve years old. It is his especial province to "give the song" to the boatmen. In a childish treble he sings over and over again "O, Yo, Lo Lo La Lo," while the men at the oars keep up an accompaniment of "Ha Che, Ha Che," as they twist at the Yo Lo.

A few of the trackers wear breechclouts. The rest are stark naked. In deference to the scruples of foreigners, the ship's company in Ichang wore the usual blue cotton blouses and trousers; but we had not been under way an hour before every man carefully rolled up his clothes in a neat bundle, hid it away underneath the boards of the deck, and then went back to primitive costume.

July 31. My passport from Pekin easily obtained for me as escort to Chunking a "Red Boat" (*Hong Chuan*). This is one of the lifeboats which from time immemorial the provincial governments of Hupeh and Sichuen have maintained on the Yang-tze River for the safety of boatmen and travellers. The Red Boat derives its name from its crimson colour. In shape it is a flat-bottomed punt about twelve feet long, with square bow and stern. It is equipped with a short mast and sail. The Red Boat's crew of six men are all trained swimmers. They wear a uniform similar to that of Chinese soldiers, but they carry no weapons. The ordinary work of a Red Boat is to patrol the river and to render assistance to junks that may have capsized or have run on a rock, but a mandarin travelling on the river is usually furnished with a Red Boat as an escort to insure the safety of the voyage. As my passport entitles me to the same privileges as a mandarin, the *Jentai* of Ichang readily assented to allow a Red Boat to accompany me all the way to Chunking.

Aug. 1. We experienced to-day an example of the dangers of junk navigation on the upper Yang-tze. From daybreak until noon the trackers had toiled and tugged at the lines, had swum across rivers, and finally succeeded in forcing the wupan through four miles of rapids and whirlpools. We were to halt for traffic in a tiny

harbour, where we could see several junks had already tied up before us. The trackers on shore were making one final effort to drag us around a promontory into the harbour.

The taikon at the bow swung the oar against the last rapid; but he had miscalculated the force of the water. A whirlpool caught the wupan and threw her bow around. The rope snapped like a piece of thread, throwing the trackers on their backs. The current swept our creaking old craft broadside on down the stream. We bumped on rocks and swung round and round like a top. For a moment the lowban lost his head and jumped from his perch; then, recovering himself, he shouted, "Yo La Lo La Yo La la lo," and the others began to work. Little by little the crew edged the wupan in to the shore, and just as I had decided that we were about to capsize we drew up at the bank and made fast to a rock in almost the same spot whence we had started in the morning. The trackers came down to us in the Red Boat five minutes later.

Aug. 2. During the night I was awakened by a tremendous wind-storm, which blew down the gorge. On arising I found that the water had risen five feet during the night. The rise has been so great that the towing-paths along the banks are submerged and impossible for the trackers. There is nothing for it but to wait here until the river falls again, whlch will probably be within thirty-six hours.

Aug. 3. Miao Ko and its environs constitute one of the most beautiful places I have seen in China. Opposite to the town brown cliffs rise sheer and steep out of the river. From a hill just outside of Miao Ko one can obtain a fine view of the gorge, which we shall enter as soon as the water permits. The cliffs at the gorge entrance are almost met by a mountainous promontory. Between the two the brown, muddy water boils like a cauldron. Cliffs and promontory must both be at least 500 feet high. For China, there is an exceptionally large number of trees near Miao Ko and a great abundance of foliage. The green leaves and boughs relieve the monotony of the rocky cliffs. The village itself is on a steep hillside, the houses built in terraces, protected by walls of rough stone. Rude stone stairways lead down to the water's edge. Back of the town is a bamboo grove, where the close leaves keep out the rays of the midsummer sun and form a delightful resting-place. A pretty cascade falls over the rocks near Miao Ko. I at first supposed that its water must be pure, but a short clamber among the rocks soon disillusioned me. Just above the cataract is a rock basin, which the townspeople of Miao Ko use for washing their clothes. All day long men, women, and children beat and roll their soiled trousers and blouses in the clear mountain stream, making the cataract below more polluted than the Yang-tze itself. The obtaining of pure drinking water is one of the difficulties of this part of the world. The rule followed by natives and foreigners alike in treating Yang-tze water is to first clarify it with alum and then boil it for two hours before drinking it; but even after this process it is full of tiny floating particles, which make it look anything but attractive. In a corner of my cabin I have devised a filter out of a fruit can and powdered charcoal, which works admirably. At least so far as appearances go, the water that drips from it is absolutely pure.

The river rose three feet again last night. When we shall be able to go on I do not know.

Aug. 4. The river has risen so high and rapidly during the last few days that it must have reached its maximum. Miao Ko is so charming a place that were it not for my eagerness to lose no time in reaching Ta Chien Lo, I should not in the least object to remaining here a month. About the village are many delightful walks in the shape of rude rock stairways cut in the mountain side. These paths invariably

lead to little shrines, in which sit enthroned gaily-painted idols, to whom the villagers burn sticks of incense.

Living on the Yang-tze possesses one advantage which previous travellers have left untold. The village of Miao Ko is the most economical place in which I have ever resided, as the following prices of commodities will indicate:

Eggs—84 cash per dozen = 5 cents U. S.

One spring chicken = 9 cents U. S.

4 lbs. string beans = $2\frac{1}{2}$ cents U. S.

Fish is plentiful, and I yesterday purchased six pounds of one newly caught that greatly resembled an American pike for 200 cash (about 12 cents U. S.).

Almost every farmer on the hillside hereabouts keeps from four to five goats. They are all snow-white, and are very tame.

Aug. 5. At noon to-day a breeze from the east sprang up, which the lowban at once took advantage of for another start. During the morning the water had fallen some six feet, uncovering the tracking-paths along the bank. A breeze is necessary to steady the boat and to hold her against the current in the crossings which must be made.

The process of crossing the river is the most dangerous part of travel on the Yang-tze, although at first sight it seems like a very simple operation. With the water at its highest, as at present, a number of submerged reefs lurk just below the surface. If the wupan happens to strike one of these, the current catching her on the other side will instantly capsize her, and your wupan will be a total wreck within a few minutes.

A rapid here called the Tong Nin is about three miles long. Between precipitous cliffs and steep, rocky hill sides the current boils and swirls. Several of the rocks are so steep that the tow-lines have to be carried past them. For the purpose we engaged a small *Sanpan*, which preceded us by several boat-lengths.

The way in which a Red Boat can take one of these rapids is simply marvellous. It seems to be taken for granted that a Red Boat can go anywhere on the river.

The crew are under a drill, and know by instinct just what to do in every possible emergency. Although the Red Boat is provided with ropes, the crew seldom use them.

In passing a rapid one man jumps ashore. He carries a long, light bamboo pole with an iron hook at the end. Another man in the boat holds out to him a corresponding pole with a similar hook at the end. The two link them together, thus forming a continuous line, by which the boat is towed.

August 7. For the past two days we have been slowly tugging up the shore. Our progress is about ten miles a day. In the afternoon we are assisted by a light wind, which begins to blow up the river about one o'clock. Strangely enough, in the morning the breeze is always down stream.

This has been the hardest day yet. We passed to-day the *Chi Tan*, perhaps the most dangerous of all the rapids between Ichang and Chunking. At low water this rapid is a mass of projecting rocks; but these are now covered to a considerable depth, and I found the *Chi Tan* the easiest part of our day's progress.

The weather is frightfully hot. The mercury in the thermometer in my cabin has registered 90° for the last forty-eight hours.

August 10. Days on the Yang-tze are so much alike that a record of one is a record of all.

For about every four rapids which we attempt to pass the wupan is carried away in one, and drifts helplessly down stream. The trackers slowly wander down stream, and start with a new rope from a point half a mile below the rapid.

August 11. The colour of the Yang-tze is a dark brown. Its width varies from half a mile in the more compressed parts of the gorges to a mile and a half in the places where the hillsides are less steep. In the centre the current is so much stronger than at the sides that the difference in the speed of the water causes a back current along the banks, and this pressure of the slow water against the more rapid current causes the centre of the river to rise to a very noticeable height above the edges. Looking up stream the Yang-tze has much the appearance of a city street—raised in the centre and graduating toward the edges, which correspond to the streets' gutters.

Wherever a point of land projects into the river the fierce current striking against it deflects, and the impact causes a diagonal current to form an angle with the shore. This cross-current is visible for perhaps half a mile from the land. It is the continual warfare between these currents which causes what are usually referred to in descriptions of the Yang-tze as "rapids"; but they are not rapids as we understand the term in America. They are not a confusion of waters caused by a current passing over an indiscriminate mass of rocks. The Chinese call these meetings of the currents *Huns*, and regard them as the river's greatest dangers.

In some places the contour of the shore causes the current to parallel it and not to form a cross-current. Such a rapid is called a *Tan*.

Two anchor ropes are considered necessary for a hun, but only one for a tan.

Aug. 12. At nine o'clock this morning we entered the Kuifu gorgé. It is only three miles long, but it contains so many huns and tans and the tracking-paths are so high above the bed of the river that it was seven o'clock in the evening before we reached the end of the three miles and tied up at the city of Kuifu.

Along the north bank of Kuifu gorge a road about ten feet in width is cut like a shelf in the side of the cliffs. In some places the road is 200 feet above the river. The outer edge of the roadway is not protected by a rail, and nearly all of the distance one misstep would hurl one into the river, many feet below. The tendency to walk over the edge is to some extent corrected by ingeniously inclining the roadbed inward, so that if the wayfarer's foot slipped he would naturally fall against the cliff and not into the Yang-tze. I walked along this road for almost its entire distance. In one of the highest and most dangerous places I came upon a little village of about a dozen houses. These were built of mud, with the cliff constituting one side of the house. According to Chinese standards, the village was complete in every detail. It contained a tea-house, a spring of water, and several pigs, whose sties were formed by hollows cut out of the rock. As is the rule everywhere in China, children were numerous in the village. They played about the rocks and rolled on the precipice, with, apparently, no fear of ever going over the edge.

Along this road the trackers had to carry the long line that towed the wupan far below them. The line was like a bar of iron, and many times as their backs bent under the strain and they were dragged a foot or so nearer to the edge I expected to see them go tumbling down the face of the cliff. This, my lowban tells me, not infrequently happens. If a heavy boat carries away in the current the only hope for the trackers is to cut the rope and let the boat take care of itself. An instant's lingering on the road means almost certain death for the trackers.

Between Kuifu and Chunking the river broadens, and the *Tans*, though still numerous, are not very dangerous.

Kuifu is the residence of a French Roman Catholic and an English Protestant Missionary. Though these two are the only white men within 200 miles, they dislike each other cordially, and their converts dwell in anything but Christian love.

The Englishman is a graduate of Cambridge, and a man of excellent family. He came to see me, and during my six hours in Kuifu I called on him. I found him in a wretched inn, where he had two scantily-furnished rooms; yet he told me that during a visit to America two years ago he had dined at the White House at the invitation of President Roosevelt.

The Sichuanese are of so dark a brown that they hardly seem to belong to the Mongolian race. They certainly are not yellow Chinese. They are short, thick-set, and muscular, and their features seem to be a strange blending of Ethiopian, Malay, and Mongol. Their skins are of the same colour as the natives of Singapore. They have the almond-shaped eyes of the Chinese; while their noses are as flat and their lips as thick as those of an American negro. This may be due to a touch of Lolo blood. The Lolas, who now survive in mountains near Kiating, were the aborigines of southwest China. They are said to bear a remarkable resemblance to negroes. This is only my first impression of the Sichuanese. I shall probably change it many times as I see more of them.

Shi Liang, the newly-appointed Viceroy of Sichuen, whom I met in Peking, is now on his way to Chentu, his new capital. He will come up the Yang-tze as far as Wantien, and thence go overland to Chentu. Great preparations for his arrival are making all along the river. All day we have accompanied a flotilla of junks, which are escorting two mandarins from Kuifu to Wantien, where they are to superintend the ceremonies of welcoming Shi Liang. Every village shows signs of unusual preparation. The smallest have triangular crimson flags at the landing-places.

Aug. 16. We passed to-day the town of Wantien, one of the largest on the Yang-tze. There seems to be a remarkable similarity in the location of all the towns on this part of the river. They are nearly all on the north bank at the western end of the gorge.

The river has fallen so rapidly during the last few days that it has reached a condition which the Chinese call "half water." In nearly all of the larger rocks on the shore are indentations and holes that have been made by the iron points of the poles by which boatmen have fended in their voyages up and down the river. In corners of the rocks holes have been drilled for receiving junk anchor ropes. Without exception, these holes are notched on the down-river side. The notch is just large enough to contain a bamboo anchor rope. The notches are the result of ages of anchor ropes at each hole. The rocks are all of granite formation.

Once in a while we reach a hun, where the odds are so much against us that the combined strength of fourteen men at the ropes is not sufficient to pull us through. At such places, in accordance with a time-honoured custom, the lowban goes ashore and at the nearest farmhouse asks for assistance. He returns with from twelve to twenty men, women and children from neighbouring fields, who fall in behind the trackers and pull and shout until the hun is passed. The rules of the river compel farmers to give aid to any junkmaster who may ask for it. If the junkmaster can afford it he gives each of his conscript assistants a fee of 5 cash (3 mills U. S. money), but they are compelled by law to work and pull equally hard whether the cash be forthcoming or not.

Aug. 21. For the last three days we have made but little progress. The heat has been intense, and the nights are as hot as the days. The mercury remains stationary at 94° in my cabin. With the heat we have experienced a succession of rainstorms, which do not cool the atmosphere, but only add to the humidity. It is impossible for coolies to track in the rain, because the water makes the rocks and mud banks too slippery for a foothold in walking. At the first appearance of a shower we tie up at

the nearest rock or at a stake driven into the bank. The mats are spread on the frame over the deck, and under it the men huddle.

Aug. (26). The last six days have been uneventful. This part of the Yang-tze resembles a vast lake in appearance.

At six o'clock yesterday afternoon we emerged from a gorge to see a sanpan coming to meet us. From the stern of the sanpan floated a yellow Custom House flag, and an Englishman in a white suit sat in the stern. He told me that Chunking was only eight miles away. After his countersigning of the lowban's papers we continued on our way for a mile, where we made fast for the night.

This morning we reached the wharf of the Chunking Trading Co., where the lowban was paid off and the crew dismissed, but not until each one of them had come forward and saluted me by clasping his hands in front of him. I am assured in Chunking that our voyage of 29 days was exceedingly quick for this time of year. Fifty days is the time usually considered necessary at high water. I am staying at the *Hong* of the *C. T. Co.* I expect to start on my overland journey across Sichuen within ten days.

PEH SHIH I. SICHUEN.

Sept. 7. I begin this morning the second stage of my journey to Ta-Chien-Lo. My company of coolies constitutes a caravan.

Two servants are a necessity. A chair between them means three carriers. My own chair has four carriers, and the luggage needs four more, besides a foreman or director of the entire company, called a "Footoo." In addition to these, I have four soldiers detailed as a guard to accompany me by the Fu Mandarin of Chunking.

The system of engaging a caravan in Sichuen proves that an Express Company in North America is not an innovation after all. On precisely the same principle is a Forwarding *Hong* of Chunking, where companies of this kind have existed for thousands of years. A Forwarding *Hong* will transport anybody or anything from one part of Sichuen to another for an agreed sum within a stipulated time, and will guarantee his or its safe delivery. The *Hong* is responsible for everything it carries, and is bound to refund to the shipper any loss of his merchandise in transit.

In this way I am being shipped. The consigner is the Chunking Trading Co. The consignee is a Chinese trader in Tibetan musk at Ta Chien Lo.

The time limit for the *Hong* is 28 days. I pay at the rate of 10,000 cash (\$6.30 U. S.) for each carrier. All my men find their own food and lodging along the way.

My original plan was to purchase a pony in Chunking; but I found that ponies were outside of the *Hong* equipments, and that a pony would require a hostler or "Mafu" to care for him. The mafu would be responsible to no one. He could steal the pony or steal any of my belongings, and I should have no redress save an unsatisfactory appeal to a mandarin.

For this reason I was compelled to abandon a pony for a chair, not unlike those in vogue in Europe two hundred years ago.

My quartet of soldiers wear red coats edged with black braid, and blue cotton trousers that reach only to their knees. They are minus hats and shoes. Across the back of each is slung a sort of scabbard containing an umbrella and a short broad-sword. These two weapons constitute the entire equipment of most Sichuen soldiers, of whom I saw many hundred in Chunking.

To-day we accomplished 90 li (about 30 miles). I am writing this in a Chinese inn which we reached aftersundown.

MA FENG CHIAO.

Sept. 8. The so-called road which we are following westward from Chunking is a stone-paved path or walk, about ten feet wide, that winds around and across hills among the rice fields. The hills are not of any great height, and a road of ordinary width could easily be constructed over them. The reason for the narrow path I take to be a desire to economize every foot of space for the cultivation of rice. Such a dense and crowded agriculture as covers these hills I have never seen before; not even in China. From base to summit every square inch of hillside is terraced in such a way as to form a series of dams encircling the hill. Behind these dams is caught the water of the brooks and rivulets in their course toward the Yang-tze.

These streams also bring with them a considerable deposit of mud and loam, in which they bury the rice sprouts and immerse them in about two feet of water, converting the terraces behind the dams into veritable swamps. It is along the tops of these dams that the stone pathway is built. All day we seemed to be passing through miles of a series of marshes.

The water in the pools is quite stagnant, and in consequence swarms of mosquitoes follow the traveller. Yet these same stagnant rice pools add greatly to the beauty of the scenery. When looked at from above their green scum is not visible. They shimmer in the sunlight like tiny lakes.

The system of Kung Kwans which I found so comfortable in Shensi is sadly modified in this part of Sichuen. The Kung Kwan exists in every town as in the north of China. One suite of rooms is retained for officials or travellers with Government passports, but the rest of the building is rented as an inn for the general public. I am writing this to-night from such a place. Mosquitoes are thick and the thermometer registers 90°.

FUNG SHAN-ZAN.

Sept. 9. Another day amid the rice fields gave me an opportunity to see something of the methods of preparing rice for market.

A crop is now being harvested. After the rice has been mowed with sickles it is tied in bundles and left to dry in the sun. Then a wooden box about six feet long, six wide, and four deep is built near the road by the side of the field. Around three sides of the box a screen of matting about eight feet high is constructed. Two men take the rice in bunches and beat the dry ears against the edge of the box. The rice flies against the screen and falls into the box. By this simple process the immense rice crop of the entire Province of Sichuen is harvested.

I also visited a rice mill where the hulls are removed. The rice, as it comes from the threshing apparatus, is placed in a hole in a hard clay floor. A heavy hammer that just fits the hole is worked by a treadle so as to fall upon the pile of rice beneath. The hole is so dug that the hammer does not fall directly upon the rice and crush it. The rice is struck a slanting blow, which only loosens the husk. It is next placed between two stones, which grind it gently (without pressing it) until the husk falls off, when the rice and chaff are separated by sieves, and the product is ready for market.

Oh, the mosquitoes of Sichuen! In the courtyard of this Kung Kwan are four swinging lamps. They were made in China, but the oil they burn came from the United States. It is for sale in almost every village in Sichuen—in hundreds of places where no other foreign product is known.

YUEN CHUAN.

September 10. The country over which we are now passing is the most prosperous part of China I have ever seen. The costly merchandise for sale in the shops of the towns, the large number of middle-class men who can afford to ride in chairs, and

the excellent maintenance of the temples and shrines would all seem to prove that the Sichuenese are right when they say that their province is the "Garden of China."

In the course of each day's journey the traveller passes at least six towns of considerable size. The arrangement and construction of them all are about the same. The stone walk which constitutes the highway expands at a gateway into a road about twenty feet wide. This expanded road is the main street of the town. Crossing it at right angles are other streets, all paved with huge stone blocks, which—for China—are kept quite clean. Opening on the streets are many shops, whose variety and quality of merchandise are unequalled in China.

The shops of Peking do not compare with those of Sichuen. Silks, furs, silver, jewellery, confectioners and tailors' shops, are at every corner, along with warehouses for rice and grain. Dealers in grain sit in front of their offices at little tables, on which samples of the different grades of their commodity are exposed in neat piles to public view, much as grain samples are arranged in the New York Produce Exchange.

The "science of business" seems to have reached a degree of perfection, or imperfection, that would do credit to any metropolis in the world. In exchanging my silver *syce* into *cash* for travelling expenses I encounter a slight fluctuation in price from day to day. This is due to a "market for money," which exists in every town.

The market is a counterpart of a Bourse or Board of Trade in the West. Here the Chinese merchants meet every morning, and, by bidding on exchange for the various parts of the country, establish a rate for the next twenty-four hours. Gold is always quoted in the Yang-tze Valley in Shanghai taels.

Because of the high water in the river very little merchandise from Shanghai reaches Sichuen during the summer, so that the balance of trade is strongly against Shanghai—a fact which is sad for a traveller from a land on a gold basis. But Shanghai exchange is falling now with the river. Its fractional reduction is determined from day to day by these "markets for money."

The number of inhabitants of Sichuen is variously estimated at from 40,000,000 to 65,000,000. Its area is about 215,000 square miles.

Broadway during the "rush" hours was never so crowded as is any street of a Sichuen town. The crowds push and jostle so vigorously that it takes a deal of shouting on the part of my bearers to open a way for us.

The same numerous population is found in the fields. Human beings literally swarm everywhere, even in the rice swamps, where hundreds can be seen at the threshing-boxes or ploughing in the mud with water-buffaloes.

LUNG CHUAN.

Sept. 11. The fervour for and interest in the Buddhist religion are noticeable in an increased degree as we approach nearer to the Tibetan border. As far as Chunking the usual blending of the three faiths of China—Buddhist, Taoist, and Confucian—was to be seen in all the temples, Taoist good-luck sticks before Buddhist images and tablets to Confucius confronting pictures of Gautama in the same temple yard. But now the manifestations of Confucius and the Taoists are growing fewer with each day's march.

In the roadside shrines and temples we see images that illustrate the life of Gautama and the Bodisats. Some of the images are remarkably well executed, and the excellent condition in which they are maintained shows the reverence in which they are held.

Buddhist priests are everywhere. I find them on the roads, in the inns, and in

the shops of the towns ; their close-shaven heads, with the marks of their initiation burned in the scalp, are in marked distinction to the queues of the ordinary Chinaman. In several towns which we passed to-day a sort of screen had been constructed at the side of the street. On the screen was painted a design of Buddhas around a picture of Gautama in the centre. In front of the screen was seated a priest reading prayers in chanting monotone. He kept time with his sing-song melody by beating with a stick on a hollow gourd. His attitude was of rapt attention as he went through the ceremony. He was contemplating Gautama, and was drowning the distracting noises of the town by the drum-beats.

LI O SUNG.

Sept. 12. At Lung Chuan the road to the westward divides, uniting again two-days' journey farther on. The stone pathway has now dwindled to less than five feet in width. It is with the utmost difficulty that one chair can pass another. No one but trained Chinese bearers could accomplish the feat at all. In passing, the bearers of the two chairs step to the edge of the path and swing their burdens out over the rice swamps below them, moving forward at the same time. One misstep would mean a bath in about four feet of mud.

By the roadside, hereabouts, are stone structures of the same shape as pagodas. They are all about twenty feet high. They are hollow, and near the base of each is a large opening. Within the structure, just underneath the opening, is an iron grate and evident preparation for kindling fires.

Upon inquiring what these structures might be, I was informed that they were furnaces for burning waste-paper on which were any written or printed characters.

CHANG CHAU SHAN.

Sept. 14. Tze Liu, where I passed last night, is the centre of the salt-mining industry of China. As the traveller approaches Tze Liu from any direction he sees outlined against the sky a multitude of derricks, each about seventy feet high, of the same shape and design as stone-hoisting derricks at home. Each derrick marks a salt well.

A merchant of Tze Liu, who had been apprised of my coming, called on me at the inn in Tze Liu, and said he would be pleased to act as my guide in visiting the salt wells. I gladly accepted his invitation, and returned with my admiration of Chinese ingenuity greatly increased. The system of mining salt proves that the Chinese have had for centuries a knowledge of mechanics which far excelled the mechanical knowledge of Europe 300 years ago.

With the one great difference, that steam-power is not used in salt-mining, the system and apparatus are quite as complex as similar operations in the United States.

The salt is held in a solution of black brine that is found at a depth of from 150 to 1,500 feet. The brine strata are reached by a drive-well, exactly like a petroleum-boring, with the difference that bamboo trunks about six inches in diameter take the place of iron pipe.

Inside the bamboo tube a bucket is lowered into the brine. The bucket, too, is made of sections of bamboo welded together with wrought iron. This bucket is fitted at the bottom with a heavy leather washer, which is opened by the force with which it strikes the brine-water and is closed again when it begins to ascend. This bucket is raised and lowered by a heavy rope made of *Zoudza* (a kind of bamboo). The rope is passed over a wheel in the top of the derrick above the well, and thence by a system of pulleys to a bamboo drum about twenty feet in diameter.

This drum is made to revolve by water-buffaloes harnessed to arms that project from it. The buffaloes are worked in relays.

The brine is emptied from the bamboo bucket into a stone tank, from which it runs through a series of bamboo tubes to the evaporating-house. Lines of these tubes, on trestles, extend for miles around Tze Liu. They form a pipe-line system that existed a thousand years before the Standard Oil Co. was born. The brine-tubes all concentrate in the big square stone building, where the salt is evaporated. The brine is run into iron pans built over brick furnaces. Under each pan natural gas is burning. This fuel was discovered near Tze Liu about sixty years ago, and since that time has been used for all the drying processes.

Bamboo, again, takes the place of iron pipe in bringing the gas from the underground well about half a mile away. As it leaves the bamboo the gas flows through a trough filled with sand. This sand is ignited, and forms the burner for the pans. Between the rows of pans are natural-gas torches to increase the heat of the room. These consist of bamboo tubes about ten feet in height, the ends covered with a baked clay cap, through which the gas percolates slowly enough to burn with a subdued flame.

Although salt wells abound everywhere within a radius of thirty miles of Tze Liu, the natural-gas output is only at one place, on the eastern edge of the town. The distance between the gas and some of the outlying wells is too great for the conveying of the brine through the bamboo pipe-line. From the more distant wells the brine is brought down the Shuen Tan River in large sanpans, built on the principle of an oil-tank steamer. The sanpans are emptied into the pipe-line by an endless-chain apparatus, which works on the principle of a grain-conveyer. The motive power consists of coolies, who sit on a bench on the bank and, with their feet, whirl around the axle on which the conveyer-chain revolves.

Short as is the period during which natural gas has been used as the salt-dryer of China, it has been used in Sichuen for twice as many years as in America. In Tze Liu there is no anxiety as to the diminution of the supply. The flow is as great to-day as when it was first discovered.

TSIA CHAU PU.

Sept. 15. Shortly before noon to-day we passed the town of Yung tien, one of the largest between Chunking and Kiating. On the side of a rocky hill near Yung tien is a head of Buddha cut in a stone alcove. The head must be fifty feet in height, and is remarkably well executed. The head is gilded, and very beautiful as the sunlight falls on it across the hillside.

SÜ LIO PU.

Sept. 16. I am writing to-night from a farm-house about 95 li (29 miles) from Kiating.

Soon after leaving Tsia Chau Pu this morning we encountered a heavy rainstorm which followed us all day. The road was in wretched condition, and very slippery for the coolies. It has been my custom in rough places to leave my chair and walk. I was attempting this to-day, when my foot slipped on a stone, and I stumbled down an embankment, my knee striking a rock and causing considerable pain. My boy helped me back into my chair, and we came on to this little hamlet, where we were compelled to stop for the night.

My knee is stiff and swollen and rather painful. Fortunately we are only one stage from Kiating, where there is a medical missionary.

KIATING.

Sept. 17. We reached here this evening at 7.30, after the hardest day's march since leaving Chunking. The fine drizzle of yesterday continued during the morning, making rapid progress over the slippery road impossible.

My lame knee kept me in my chair all day.

The size of the farm-houses and their barns and outhouses is evidence of the prosperity of Sichuen. Were it not for the ever-present rice fields and water-buffaloes it would take but little stretch of the imagination to fancy oneself in America.

Many of the farm-houses are built of stone or brick. Some of them are two stories in height. In front of almost every house is a sort of yard, containing an arbor built of bamboo, over which vines are trained. Near some of the houses, too, are beds of flowers.

The approach to Kiating from the east is a delightful relief after the monotony of rice fields and hillside terraces. The narrow stone road gradually descends into the valley of the Min River. The road passes between high sandstone cliffs overhung with moss and ferns and crosses several small streams on heavy stone bridges. After 9 li (3 miles) of this kind of a highway we suddenly emerged on the bank of the Min. Across it, about a mile and a half away, I could distinguish in the gathering twilight the pagodas and temple roofs of Kiating. My luggage, two boys, coolies, and myself were loaded into a sanpan and yoloed across to the small river gate of the city.

GANG JOU PU.

Sept. 18. Kiating is the cleanest city I have seen in China. The pavements of the streets are not only built of stone blocks, but they are kept in excellent repair, and graduate from a raised centre to gutters at the side like an American roadway. Some streets, too, have stone curbs that border narrow stone sidewalks the like of which are rare in the Eighteen Provinces.

I visited the Canadian Methodist Mission station, where I found a medical missionary named Dr. Adams. He looked at my knee and told me that I had fractured the knee-cap.

It was so swollen, however, that he could not make a very thorough examination. He referred me for a more definite diagnosis to an American Baptist missionary at Yachau, five days' journey from Kiating. With some bandages which Dr. Adams gave me and a piece of board I improvised a splint, which my boy Ming Yi tied around my leg, so as to prevent any bending of the knee. I have had the foot-rest of my chair swung at an angle, to obviate the necessity of taking my knee from a rigid position while riding, and by these devices I manage to be very comfortable.

HUNG YA.

Sept. 19. The country through which we have passed since leaving Kiating is one of the most beautiful regions I have ever seen anywhere.

The road to Yachau from Kiating is a direct course of 90 miles to the northwest. The road follows the valley of the Ya River, from which the Yachau derives its name. The Ya flows into the Tung river about ten miles west of Kiating.

The current of the Ya is very swift, and at this season of the year the river has so many rapids that navigation in ordinary junks or wupans is impossible.

The only craft that can be used in the Ya current are rafts. These are made of the trunks of bamboo trees lashed together and turned up at one end into a curved bow, so that a Ya raft looks for all the world like a large American toboggan.

Along the banks of the Ya winds the road we are following. Instead of rice, grain is raised in this part of Sichuen. It is harvest-time now, and the vast population are at

work in the fields. The grain is cut with sickles and threshed with flails. The mills in which it is ground into flour are ingenious contrivances.

In the shallows of the Ya River a mill race is constructed by piling two rows of cobblestones about twenty feet apart. The current forced between the two stone dams is made to turn a mill wheel whose axis passes through the centre of a round stone platform about twenty feet in diameter. Just inside the edge of the platform is a groove about eighteen inches wide and a foot deep, extending around the entire circumference of the platform. Into this groove the grain is poured. From the top of the mill-wheel axle extends an arm, which forms the axle of a large round stone weighing 400 or 500 lbs. This stone fits into the groove, and as the mill wheel revolves the stone swings around the platform, crushing the grain as it passes over it.

I looked in vain to-day for a foot of ground that was not under cultivation. Everywhere fields of grain. There is no timber in our sense of the word, but around almost all of the numerous temples is a grove of bamboos. Ferns and moss abound on all the rocks. The road crosses the smaller streams on stone bridges that are all very old and show a great knowledge of engineering. The larger bridges are built on the principle of the cantilever. In the ascent of hills the road takes the form of a stairway whose steps are blocks of hewn sandstone about four feet long by eighteen inches square. Between Chunking and Tibet there are no vehicles on wheels, and beyond Kiating we have met no beasts of burden but men, although I am told that pony and donkey caravans do occasionally make the journey to Yachau. There is no noise of traffic in the road. One hears only the sound of flails and the voices of men, women, and children gathering the harvest.

Pagodas are noticeably absent from the landscape. The few that are to be found on the higher hills are of great age and very much out of repair.

Buddhist temples and shrines, on the other hand, are kept in excellent repair. The images are, without exception, newly painted, and in every temple priests are to be seen drumming out their prayers on hollow gourds. Near the roadside to-day I saw two women kneeling before a shrine which contained a gaily-painted idol. They had built a little fence of incense sticks around themselves, and within this they had prostrated themselves on their faces.

They were carrying on an earnest conversation with the idol, and frequently kow-towed to it.

SUI KO.

Sept. 21. We left Hung Ya this morning in a pouring rain. For about 20 li the road followed the right bank of the Ya to a little wharf near a farm-house. Here we found a sanpan, which conveyed us to the opposite bank.

Immediately on landing the coolies put down their burdens, took long breaths, and rested for ten minutes. Then at the word "Zo" (go) from the No. 1 they shouldered their chairs and baskets and began the ascent of a hill that rose abruptly from the water's edge. In order to ascend, the road, which was no wider than a path, wound in a sharp zigzag up the face of the hill. The angle of inclination was more than 30° during the entire ascent.

The coolies could not stop for so much as a minute after the ascent was begun. Their tendency was constantly to slip backward. In rounding one of the many corners of the road the bearers would make pivots of their shoulders and pass the chair and its occupant out over the cliff side, which ran sharp and steep down to the water's edge. As I looked down from my chair while being passed through space I could not but feel that one misstep of my bearers would mean for me a fall of several hundred feet like a log of wood.

But the ascent of the hill gave me my first view of the Tibetan mountains. As we neared the summit of the hill I could make out far to the northwest a range of high peaks dimmed by the distance and the clouds that circled about them. Below lay the Ya winding in and out between hillsides and white gravel beds.

In the distance rafts dotted the silver water, and caravans of men, like my own, seemed no larger than flies as I looked down on them after that dangerous ascent.

The country is wilder than any I have found thus far. The inn from which this is written is only an annex to a farm-house in a hamlet of a dozen houses.

The road for several hours this afternoon led through bamboo groves and crossed mountain streams on heavy stone bridges.

YA CHAU.

Sept. 22. We reached this town at two o'clock this afternoon. Ya Chau is surrounded on the northeast and west by high mountains. They are devoid of verdure, and their beauty is sadly marred by the terraces which cover their sides. Ya Chau itself is a dreary, dirty town, whose streets wander aimlessly in all directions. It is, however, quite a commercial centre as the head of navigation on the Ya River.

The only foreigners in Ya Chau are Americans. They are both Baptist missionaries. One, named Openshaw, is a Staten Island man, and the other, Corlies, is a physician from Philadelphia. They both called on me at the inn. I am the first American they have seen for more than a year.

Dr. Corlies improved the splint on my leg, and decided that I was suffering from nothing more serious than "fractured ligaments." This is very cheering news, although my leg is still painful, and I must not take it out of the splint until I reach Ta Chien Lo. At the doctor's advice I shall spend to-morrow in Ya Chau.

YA CHAU.

Sept. 23. This has been a day of preparation. Everything is being put in readiness for a harder road than any over which I have yet travelled. The coolies who have carried me safely from Chunking have been exchanged here for another lot.

Sept. 24. The map which I am using is the China Inland Mission of Breitnheider's Atlas. It is supposed to indicate all the roads of China, but between Ya Chau and Ta Chien Lo the map is a blank. No road is shown, and only two towns.

As the road has never been described I wish to give some account of it in its entirety. This will be possible only when the eight-days' journey between Ya Chau and Ta Chien Lo is finished.

TA CHIEN LO.

Oct. 2. The road which we have followed from Ya Chau looks, as I have marked it on my map, like a large letter U. Although Ya Chau and Ta Chien Lo are in almost the same latitude, the route between them passes far to the southward, and then, when within a quarter of a degree of the latitude of Kiating, veers to the northwest toward Ta Chien Lo.

The reason for this circuitous course is the mountain ranges, which begin at Ya Chau. Their height varies from 5,000 to 15,000 feet. Between them are passes through which the road winds. Where there is a river valley the road follows it. In a river bottom the road crosses the river again and again. It takes a twist of two or three days' journey around a mountain that could be crossed in half a day.

In some places the road is eight feet wide. In others its width is about six feet, but it often narrows to four feet. Nowhere between Ya Chau and Ta Chien Lo is it

more than a path. Travel over this road is very exciting. For fully half the distance the traveller sees on one side of his chair only the steep side of a mountain whose summit is covered with clouds, and on the other looks down into ravines and gorges into which one misstep of his chair-bearer would hurl him. In ascending a mountain the road makes many sharp turns. When one of these is reached the chair-bearers pass their burden out over the abyss below. To look down at such moments is anything but a pleasant sensation.

The scenery is monotonously grand. Day after day one sees nothing but mountains, black and steep and gloomy. In many of the valleys there is little sunlight.

Ya Chau is 1,400 feet above sea-level and Ta Chien Lo nearly 9,000 feet. So that the nine-days' journey between the two places means a climb of more than 7,000 feet. This sudden change from the humid climate of the Yang-tze Valley to the rarefied atmosphere sometimes causes a rush of blood to the head and attacks of fainting. I fortunately escaped serious trouble. Fearful and dangerous as the road is, it is one of the commercial highways of China. It is preliminary to the caravan route to Tibet, which begins at Ta Chien Lo. The amount of merchandise carried over it would seem almost incredible when its difficulties are considered. It is exceptional to pass over one li of the way without meeting at least six or eight men to whose backs are strapped tightly-bound packages. Occasionally in some defile one hears the tinkle of the leader of an approaching train of donkeys, laden, like the men, with every kind of merchandise.

Although the land is bleak and desolate and cold, several of the towns which mark the end of the caravan's stages are of considerable size and importance. In the bottom lands and on the sheltered sides of the mountains are farms and farm-houses, although these are not nearly so numerous as in the country east of Ya Chau.

In my nine-days' journey I passed two Shen towns, Yung Lan and Tsing Ki. The former is a dreary, dirty place, but contains a population estimated at 8,000. For twelve hours after leaving Yung Lan we were ascending a mountain called the Shan Nin, at whose base flows a tributary of the Ya River, forming the Ban Feng Valley.

The eastern slopes of Shan Nin are covered with underbrush and dense verdure, which extends clear to the summit, but, on the western slopes, a few straggling blades of coarse grass are the only form of vegetation that relieves the bare black rocks of the mountain side. This sudden change from verdure to barrenness is explained by the fact that the eastern side of Shan-Nin is protected from the wind, which strikes against the western side of the mountain.

To the westward, from the little plateau on the top of Shan-Nin, was a range of blue mountains, whose summits were covered with snow. In the centre towered one higher than the rest. It was of great length, and seemed to be flat on the top, and half way to the summit hung a fringe of white clouds. This, my coolies informed me, was Bea Chu Stū, one of the sacred mountains of Tibet. Above the clouds, they said, is a temple of Buddha.

At the base of Shan-Nin is the Shen town of Tsin Ki. For China Tsin Ki is very clean. It has large shops, and shows signs of great commercial prosperity. The Mandarin of Tsin Ki called on me at my Kung Kwan, and we spent a very pleasant evening. He was the jolliest person I had met since Shanghai. His first question was to ask how old I was, and he told me that he was fifty-one. He was a little weazened man with small, bright eyes. He told me that in times past he had disliked foreigners, but that he now realized that foreigners were bound to make their way into China, and he had decided to do all he could to make it pleasant for them. The Mandarin did not seem able to distinguish foreigners from missionaries.

Two days after leaving Tsin Ki we entered the valley of the Tung River. This is one of the very few rivers of China which are not navigable for any kind of craft. For a few hundred li to the westward of Kiating, where it empties into the Min, rafts and sampans are able to float down stream; but the upper Tung, which we followed, although broad and deep, is almost one continuous rapid for hundreds of miles. The road runs along its left bank to Luting, where the river is crossed by a suspension bridge hung from iron chains. Chain bridges are the kind most frequently met with after leaving Ya Chau. To one unaccustomed to them they appear frail, but some of them, I was told, have withstood the continual travel of hundreds of years.

Luting is a caravan town of about 2,000 inhabitants. It is at the base of a mountain 21,000 feet high. On and around it we toiled as far as Wa-sze, where we turned sharp to the westward. Between Wa-sze and Ta Chien Lo we passed through a country different from any I have ever seen in the Chinese Empire. There were no towns, and scarcely any villages, only clusters of four or five houses, which marked the beginning and end of each day's journey. The land is not under cultivation, and almost the only signs of human habitation are occasional flocks of long-haired goats and yaks grazing on the mountain side.

For the greater part of the way the road from Wa-sze follows a wild gorge, through which runs a torrent, tributary of the Tung. It was on this part of the road that I first became aware of the fact that I was approaching the western confines of the Eighteen Provinces. The colloquial language of the inns suddenly changed from Chinese to Tibetan. I met a number of Tibetans in the narrow road. Their appearance and costume were very different from the Chinese.

Their hair was long and straight, and their complexion more brown than yellow—not unlike that of the Hindu. They all wore scarlet mantles made of a kind of burlap, with scarlet trousers and turbans of the same material. Their boots were like Indian moccasins, but they reached as high as their knees, and were decorated with stripes of green and yellow leather.

Two days after leaving Wa-sze I saw in a hollow of the mountains a cluster of tiled roofs. This was Ta Chien Lo, where I am now writing, and here I expect to remain six months. I am staying at the station of the China Inland Mission.

I have taken two rooms in a Tibetan inn, and I have engaged a Buddhist Lama to teach me the Tibetan language. He has recently come from Lhassa, where he lived for twelve years.

FRANCIS H. NICHOLS.

PLACES AND DISTANCES, FROM CHUNG KING TO TACHIENLU.
(From the Diary of F. H. Nichols.)

Chung King	to	Fou tou kwang.....	15	Li
Fou tou kwang	"	Lou Chao pu.....	15	"
Lou Chao pu	"	Lung dong kwan.....	25	"
Lung dong kwan	"	Peh Shih I.....	5	"
Peh Shih I	"	Tsu Ma Kong.....	20	"
Tsu Ma Kong	"	Lao Kwang Kow.....	15	"
Lao Kwang Kow	"	Lai feng I.....	15	"
Lai feng I	"	Ting Chia Ya.....	20	"
Ting Chia Ya	"	Ma feng Chiao.....	20	"
Ma feng Chiao	"	Ta Kan Chan.....	20	"
Ta Kan Chan	"	Yan Chuan Hsien.....	30	"
Yan Chuan Hsien	"	Huang Kho Su.....	30	"
Huang Kho Su	"	Yue ting pu.....	30	"
Yue ting pu	"	Feng Kou pu.....	30	"
Feng Kou pu	"	Yun Chuan Hsien.....	30	"
Yun Chuan Hsien	"	Mou tze Chiao.....	20	"
Mou tze Chiao	"	Shou Chue fang.....	30	"
Shou Chue fang	"	Li shih Chuen.....	25	"
Li shih Chuen	"	Shih Yen Chiao.....	15	"
Shih Yen Chiao	"	Lung Chang Hsien.....	20	"

Lung Chang Hsien	to	Tse Chia Chan.....	15	Li
Tse Chia Chan	"	Lung shih Chuen.....	15	"
Lung shih Chuen	"	Wang Chia Chan.....	25	"
Wang Chia Chan	"	Lung Ling pou.....	15	"
Lung Ling pou	"	You fu doe.....	15	"
You fu doe	"	King Chia Lan.....	15	"
King Chia Lan	"	Shing Ling pu.....	15	"
Shing Ling pu	"	Shuan tang.....	25	"
Shuan tang	"	Kan tze An.....	20	"
Kan tze An	"	Tze Lin Chien.....	15	"
Tze Lin Chien	"	Cheng Chia Chan.....	55	"
Cheng Chia Chan	"	Chang Chia Chang.....	25	"
Chang Chia Chang	"	Kou san pu.....	20	"
Kou san pu	"	Yun Hsien.....	20	"
Yun Hsien	"	Tsia Chan pu.....	25	"
Tsia Chan pu	"	Lao Quean Tai.....	15	"
Lao Quean Tai	"	Chan tan Chiao.....	15	"
Chan tan Chiao	"	Tsu Yuen pu.....	30	"
Tsu Yuen pu	"	San Kiang Chun.....	30	"
San Kiang Chun	"	Ma Tae Chien.....	10	"
Ma Tae Chien	"	Ho Ee Kan.....	25	"
Ho Ee Kan	"	Ma Lao San.....	35	"
Ma Lao San	"	Be tze Kai.....	10	"
Be tze Kai	"	Kia ting fu.....	—	"
Kia ting fu	"	Cha Chung.....	70	"
Cha Chung	"	Hung Wa.....	70	"
Hung Wa	"	Sui Ko.....	75	"
Sui Ko	"	Yachau.....	45	"
Yachau	"	Yung Lan.....	85	"
Yung Lan	"	Tsin Ki.....	105	"
Tsin Ki	"	Dei En Go*.....	50	"
Dei En Go	"	Ming Ko.....	60	"
Ming Ko	"	Nin Shi.....	70	"
Nin Shi	"	Sa Wan.....	75	"
Sa Wan	"	Wa Sze.....	30	"
Wa Sze	"	Ta Chien Lo.....	60	"

One li = .3 of a mile. 1715 Li
.3

514.5 miles.

* Luting is 25 li north of Dei En Go.

